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			EXAMINER	
			JEAN GILLES, JUDE	
		ART UNIT	PAPER NUMBER	
		2143		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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**Office Action Summary**

Application No.

10/670,505

Applicant(s)

MOTOYAMA, TETSURO

Examiner

Jude J. Jean-Gilles

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                                     |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                         | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                                | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/13/2007, and 10/26/2007</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

This Office Action is responsive to the Reply filed on 11/14/2007.

### ***Information Disclosure Statement***

1. The references listed on the Information Disclosure Statement submitted on 09/13/2007, and 10/26/2007 have been considered by the examiner (see attached PTO-1449A).

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-30 have been fully considered, but are not deemed persuasive. Independent claims 1, 11, and 21 have been amended carefully. Applicant's arguments are deemed moot in view of the existing ground of rejection as reiterated here below. Applicants' amendment have not significantly affected the scope of the claims, and are rejected in view of the prior art of record.

The dependent claims stand rejected as articulated in the First Office Action and all objections not addressed in Applicant's response are herein reiterated.

In response to Applicant's arguments, 37 CFR § 1.11(c) requires applicant to "clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must show the amendments avoid such references or objections."

Because of anticipation that the arguments raised in the response to the First Office Action might be raised in the future, the Examiner thinks it is prudent to address the main points of contention:

Point A) Applicants contend that "Lovy describes how appliance 300 monitors the raw status events using various standard protocol queries through status poller 300. However, does not disclose or suggest retrieving support information containing parameters for extracting the status information using the plurality of communication protocols. There is no disclosure or suggestion that status poller 300 uses the claimed "support information" to obtain the status information". Furthermore, Applicants argue that " Further, the status information in database 352 of Lovy is not used to extract any status information from data received from the monitored device. The Office is requested to explain how the status information in database 352 (which the Office equates to the claimed "second memory") is used to extract status information from data received from the monitored device. It makes no sense to use status information to extract the status information."

As to point A: The prior art of record, Lovy discloses a method for monitoring and maintaining status and dependency data related of a multitude of objects( network objects) in memory. Lovy teaches that when finding the root cause of a network problem, the dependency data related to each object is used to locate the object that is affected and discover its status. The examiner interpreted the support information used to extract the status of a network device such as claimed to equate the dependency

data as described by Lovy. The dependency data performs the function of retrieving status data from the monitored network objects/devices (see abstract; see column 2, lines 44-54).

Figure 5 of Lovy illustrates the first memory (status poller 330) and second memory (decision engine 334). Lovy teaches that status poller 330 polls the network at routine intervals, and during each polling cycle, each monitored network object is polled to discover any change in status from the last time the Status Poller 330 was run. The status and dependency information is retrieved from the status poller 330, the first memory, and stored in the database 352, located in decision engine 334, the second memory (see fig. 7, items 334, and 352). This information is available for used by other processes for extracting network status information (see column 8, lines 66-67, and continue in lines 1-17 of column 9). With respect to selecting the appropriate communication protocol, Lovy is clear that a poller such as appliance 300 (see fig. 5) may utilize any of the common protocols listed when acquiring network objects' status (see column 8, lines 24-39).

Point B) Applicants argue that "In view of the above-noted distinctions, Applicants respectfully submit that Claim 1 (and any claims dependent thereon) patentably distinguish over Lovy and Bennett, taken alone or in proper combination. Claims 11 and 21 recite elements analogous to those of Claim 1. Applicants respectfully submit that Claims 11 and 21 (and any claims dependent thereon) patentably distinguish over Low

and Bennett, taken alone or in proper combination,  
for at least the reasons stated for Claim 1. "

As to point B, see point A above.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-30 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Lovy et al (hereinafter Lovy) U.S. Patent No. 7,069,480 B1 in view of Bennett et al (Bennett) U.S. Patent No. 6,799,211 B1.

**Regarding claim 1:** Lovy discloses the invention substantially as claimed. Lovy teaches a method of storing information configured to be used for a plurality of communication protocols to extract status information related to a monitored device among distinct devices communicatively coupled to a network (*fig. 2, column 6, lines 42-64; the presence gateway 225 connects a multi-protocol network, such as packet-switched data network 202, and circuit switched communications network 204, in order to monitor components; see also abstract; see column 2, lines 38-63; and note the role of the status Poller in extracting status data stored in memory*), comprising:

retrieving, from a first memory, support information for extracting the status information using the plurality of communication protocols (*column 6, lines 65-67, continue in column 7, lines 1-22; column 8, lines 46-62; the values such as raw status event are retrieved from the network management system; in fig. 6, status Poller 330 represents the first memory*);

storing, in a second memory, the information obtained from the first memory for accessing the device using the plurality of communication protocols (*column 8, lines 51-55; column 9, lines 12-17; note that database 352 is the second memory in which status information obtained from the status Poller is stored*);

selecting a communication protocol among the plurality of communication protocols (*column 8, lines 31-39*); and

accessing the device using the selected communication protocol and the information stored in the second memory to extract the status information (*column 8, lines 31-39; column 8, lines 51-55; column 9, lines 12-17*);

wherein the status information is extracted using virtual interface functions associated with an abstract software class (*column 16, lines 43-60; modules such as decision mode, variable module, command module etc. comprise the many virtual functions within one or many abstract class*).

Although Lovy discloses substantial features of the claimed invention, Lovy does not distinctly teach "the virtual interface functions are common to each of the plurality of communication protocols".

In an analogous art, Bennett shows the mechanisms of using one instance of a communication module or function to potentially connect to different communication protocols or technologies in a network (see *Bennett, figs. 1, and 2; column 4, lines 27-39*). Furthermore, claim 37 of Bennett discloses for instance “*a common interpretation module for the purpose of extracting management data from a first and a second operational data received from two distinct network resources associated each with different network communications protocols*”. In an attempt to facilitate managing and monitoring of network resources, systems, devices, and processes coupled to a communications platform utilizing multiple communications protocols, Bennett proposes the use of common communication modules or functions in order to standardize communications without hindering other network subsystem processes and performance.

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Bennett's teachings of using functions or modules that are common to a plurality of communication protocols

with the teachings of Lovy, so that “*...networks including systems, devices, and processes that communicate via variant and often proprietary protocols may be coupled to a common communications agent or facility that consolidates operational data (e.g., system and application performance data, etc.) received from such variant network resources and reformats the same based on a standardized format and/or protocol. As such, organizations involved in network administration can train personnel*



*on a single network management and monitoring system without requiring knowledge of particular underlying communications protocols and other system operating parameters. As a result, such organizations can reduce costs associated with network administration and can provide network support more effectively and in less time.” As stated by Bennett in lines 25-43 of column 2”. By this rationale, **claim 1** is rejected.*

**Regarding claim 2-30:** The combination Lovy-Bennett discloses:

2. The method of claim 1, wherein the information for extracting the status information using the plurality of communication protocols is stored in the second memory in protocol-dependent data structures (*see Lovy, column 8, lines 24-33; column 3, lines 30-31, and lines 45-47; column 9, lines 12-17*).
3. The method of claim 1, wherein the retrieving step comprises: retrieving, from the first memory, relative priority data associated with at least one type of status information for at least one communication protocol of the plurality of communication protocols (*see Lovy; column 6, lines 65-67, continue in column 7, lines 1-22; the various protocol queries enabled the network appliance to retrieve priority status data relative to one particular protocol through the use of the Status Poller*).
4. The method of claim 4, wherein the relative priority data includes an indication of the quality of the at least one type of status information obtainable using each of the

at least one communication protocol (*column 6, lines 65-67, continue in column 7, lines 1-22*).

5. The method of claim 1, wherein the retrieving step comprises: retrieving, from the first memory, relative priority data associated with at least one communication protocol of the plurality of communication protocols (*column 3, lines 22-29, and lines 39-45; column 8, lines 29-60; column 9, lines 8-14*).

6. The method of claim 1, wherein the retrieving step comprises: retrieving, from the first memory, at least one of a web page address, a keyword, and a relative location for accessing the device using HTTP (*see Lovy; column 8, lines 31-33, lines 49-65; column 11, lines 56-64*).

7. The method of claim 1, wherein the step of accessing the device comprises: extracting the status information using relative priority data associated with at least one type of status information for at least one communication protocol of the plurality of communication protocols (*column 3, lines 22-29, and lines 39-45; column 8, lines 29-60; column 9, lines 8-14*).

8. The method of claim 1, wherein the selecting step comprises: selecting a communication protocol among SNMP, HTTP, and FTP (*see Lovy; column 8, lines 31-33, lines 49-65; column 11, lines 56-64*).

9. The method of claim 1, wherein the accessing step comprises: transmitting to the device, information stored in the respective second memory necessary to access the device using the selected communication protocol (*column 3, lines 30-31, and lines 45-47; column 9, lines 12-17*).

10. The method of claim 9, wherein the accessing step comprises: receiving, by the device, the transmitted information; and processing, by the device, the received information (*column 3, lines 30-31, and lines 45-47; column 9, lines 12-17*).

11. A system for storing information configured to be used for a plurality of communication protocols to extract status information related to a monitored device among distinct devices communicatively coupled to a network (*see Lovy; fig. 2, column 6, lines 42-64; the presence gateway 225 connects a multi-protocol network, such as packet-switched data network 202, and circuit switched communications network 204, in order to monitor components; see also abstract; see column 2, lines 38-63; and note the role of the status Poller in extracting status data stored in memory*), comprising:

means for retrieving, from a first memory, support information for extracting the status information using the plurality of communication protocols (*see Lovy; column 6, lines 65-67, continue in column 7, lines 1-22; column 8, lines 46-62; the values such as*

*raw status event are retrieved from the network management system; in fig. 6, status Poller 330 represents the first memory ).*

means for storing, in a second memory, the information obtained from the first memory for accessing the device using the plurality of communication protocols (see *Lovy; column 8, lines 51-55; column 9, lines 12-17; note that database 352 is the second memory in which status information obtained from the status Poller is stored*);

means for selecting a communication protocol among the plurality of communication protocols(see *Lovy; column 8, lines 31-39*); and

means for accessing the device using the selected communication protocol and the information stored in the second memory to extract the status information (see *Lovy; column 8, lines 31-39; column 8, lines 51-55; column 9, lines 12-17*);

wherein the status information is extracted using virtual interface functions associated with an abstract software class (see *Lovy; column 16, lines 43-60; modules such as decision mode, variable module, command module etc. comprise the many virtual functions within one or many abstract class*), and the virtual interface functions are common to each of the plurality of communication protocols (see *Bennett, figs. 1, and 2; column 4, lines 27-39; column 16, lines 43-60*). The same motivation and reason to combine used for the rejection of claim 1 are similarly valid form this claim. By this rationale, claim 11 is rejected.

12. The system of claim 11, wherein the information for extracting the status information using the plurality of communication protocols is stored in the second memory in protocol-dependent data structures (*see Lovy, column 8, lines 24-33; column 3, lines 30-31, and lines 45-47; column 9, lines 12-17*).

13. The system of claim 11, wherein the means for retrieving comprises: means for retrieving, from the first memory, relative priority data associated with at least one type of status information for at least one communication protocol of the plurality of communication protocols (*see Lovy; column 6, lines 65-67, continue in column 7, lines 1-22; the various protocol queries enabled the network appliance to retrieve priority status data relative to one particular protocol through the use of the Status Poller*).

14. The system of claim 13, wherein the relative priority data includes an indication of the quality of the at least one type of status information obtainable using each of the at least one communication protocol (*column 6, lines 65-67, continue in column 7, lines 1-22*).

15. The system of claim 11, wherein the means for retrieving comprises: means for retrieving, from the first memory, relative priority data associated with at least one communication protocol of the plurality of communication protocols (*column 3, lines 22-29, and lines 39-45; column 8, lines 29-60; column 9, lines 8-14*).

16. The system of claim 11, wherein the means for retrieving comprises: means for retrieving, from the first memory, at least one of a web page address, a keyword, and a relative location for accessing the device using HTTP (*see Lovy; column 8, lines 31-33, lines 49-65; column 11, lines 56-64*).

17. The system of claim 11, wherein the means for accessing the device comprises: means for extracting the status information using relative priority data associated with at least one type of status information for at least one communication protocol of the plurality of communication protocols (*column 3, lines 22-29, and lines 39-45; column 8, lines 29-60; column 9, lines 8-14*).

18. The system of claim 11, wherein the means for selecting comprises: means for selecting a communication protocol among SNMP, HTTP, and FTP (*see Lovy; column 8, lines 31-33, lines 49-65; column 11, lines 56-64*).

19. The system of claim 11, wherein the means for accessing comprises: means for transmitting to the device, information stored in the respective second memory necessary to access the device using the selected communication protocol (*column 3, lines 30-31, and lines 45-47; column 9, lines 12-17*).

20. The system of claim 19, wherein the means for accessing comprises: means for

receiving, by the device, the transmitted information; and means for processing, by the device, the received information (*column 3, lines 30-31, and lines 45-47; column 9, lines 12-17*).

21. A computer program product having a computer usable medium for storing information configured to be used for a plurality of communication protocols to extract status information related to a monitored device among distinct devices communicatively coupled to a network (*see Lovy; fig. 2, column 6, lines 42-64; the presence gateway 225 connects a multi-protocol network, such as packet-switched data network 202, and circuit switched communications network 204, in order to monitor components; see also abstract; see column 2, lines 38-63; and note the role of the status Poller in extracting status data stored in memory*), comprising:

instructions for retrieving, from a first memory, support information for extracting the status information using the plurality of communication protocols (*see Lovy; column 6, lines 65-67, continue in column 7, lines 1-22; column 8, lines 46-62; the values such as raw status event are retrieved from the network management system; in fig. 6, status Poller 330 represents the first memory*);

instructions for storing, in a second memory, the information obtained from the first memory for accessing the device using the plurality of communication protocols (*see Lovy; column 8, lines 51-55; column 9, lines 12-17; note that database 352 is the second memory in which status information obtained from the status Poller is stored*);

instructions for selecting a communication protocol among the plurality of communication protocols(*column 8, lines 31-39*); and

instructions for accessing the device using the selected communication protocol and the information stored in the second memory to extract the status information (see *Lovy; column 8, lines 31-39; column 8, lines 51-55; column 9, lines 12-17*);

wherein the status information is extracted using virtual interface functions associated with an abstract software class (see *Lovy; column 16, lines 43-60; modules such as decision mode, variable module, command module etc. comprise the many virtual functions within one or many abstract class*), and the virtual interface functions are common to each of the plurality of communication protocols (see *Bennett, figs. 1, and 2; column 4, lines 27-39; column 16, lines 43-60*). The same motivation and reason to combine used for the rejection of claim 1 are similarly valid form this claim. By this rationale, claim 21 is rejected.

22. The computer program product of claim 21, wherein the information for extracting the status information using the plurality of communication protocols is stored in the second memory in protocol-dependent data structures (see *Lovy, column 8, lines 24-33; column 3, lines 30-31, and lines 45-47; column 9, lines 12-17*).

23. The computer program product of claim 21, wherein the instructions for retrieving comprise: instructions for retrieving, from the first memory, relative priority data



associated with at least one type of status information for at least one communication protocol of the plurality of communication protocols (*see Lovy; column 6, lines 65-67, continue in column 7, lines 1-22; the various protocol queries enabled the network appliance to retrieve priority status data relative to one particular protocol through the use of the Status Poller*).

24. The computer program product of claim 23, wherein the relative priority data includes an indication of the quality of the at least one type of status information obtainable using each of the at least one communication protocol (*column 6, lines 65-67, continue in column 7, lines 1-22*).

25. The computer program product of claim 21, wherein the instructions for retrieving comprise: instructions for retrieving, from the first memory, relative priority data associated with at least one communication protocol of the plurality of communication protocols (*column 3, lines 22-29, and lines 39-45; column 8, lines 29-60; column 9, lines 8-14*).

26. The computer program product of claim 21, wherein the instructions for retrieving comprise: instructions for retrieving, from the first memory, at least one of a web page address, a keyword, and a relative location for accessing the device using HTTP (*see Lovy; column 8, lines 31-33, lines 49-65; column 11, lines 56-64*).

27. The computer program product of claim 21, wherein the instructions for accessing the device comprise: instructions for extracting the status information using relative priority data associated with at least one type of status information for at least one communication protocol of the plurality of communication protocols (*column 3, lines 22-29, and lines 39-45; column 8, lines 29-60; column 9, lines 8-14*).

28. The computer program product of claim 21, wherein the instructions for selecting comprise: instructions for selecting a communication protocol among SNMP, HTTP, and FTP (*see Lovy; column 8, lines 31-33, lines 49-65; column 11, lines 56-64*).

29. The computer program product of claim 21, wherein the instructions for accessing comprise: instructions for transmitting to the device, information stored in the respective second memory necessary to access the device using the selected communication protocol (*column 3, lines 30-31, and lines 45-47; column 9, lines 12-17*).

30. The computer program product of claim 29, wherein the instructions for accessing comprise: instructions for receiving, by the device, the transmitted information; and instructions for processing, by the device, the received information (*column 3, lines 30-31, and lines 45-47; column 9, lines 12-17*).

***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from examiner should be directed to Jude Jean-Gilles whose telephone number is (571) 272-3914. The examiner can normally be reached on Monday-Thursday and every other Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn, can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3201.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-0800.

Jude Jean-Gilles

Patent Examiner

Art Unit 2143

JJG

January 23, 2008



NATHAN FLYNN  
SUPERVISORY PATENT EXAMINER